

What is claimed is:

1. An audio system for an automobile comprising:  
a radio mounted to the automobile;  
a plug transmitter plugged into a cigar lighter socket and able to input electric power from a power source mounted to the automobile; and  
a portable audio device connected to the plug transmitter;  
wherein said plug transmitter transmits an audio signal from the portable audio device as a radio wave in a receiving frequency band of said radio, and  
said radio receives the radio wave from said plug transmitter and performs an audio output operation from a speaker.

2. An audio system for an automobile according to claim 1, wherein a card reading modulator portion for reading data from a memory card recording audio data and outputting the read data as an audio signal is additionally arranged in said plug transmitter; and  
the audio signal from the card reading modulator portion can be transmitted as a radio wave in the receiving frequency band of said radio.

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3. An audio system for an automobile according to claim 1 or 2, wherein a constant voltage output circuit is further arranged in said plug transmitter, and electric power can be supplied to said portable audio device connected to the plug transmitter.

4. A plug transmitter characterized in that a transmitting circuit is stored into a case having a plug-in portion able to be plugged into a cigar lighter socket; a power input terminal for inputting electric power from a power source mounted to an automobile is arranged in said plug-in portion;

an input connector connected to said transmitting circuit and inputting an audio signal from a portable audio device is arranged in said case; and

said transmitting circuit is operated by the electric power from said power input terminal and transmits said audio signal as a radio wave in a receiving frequency band of a radio mounted to the automobile.

5. A plug transmitter according to claim 4, wherein said input connector is an input pin jack into which a pin of an audio cable having one end connected to an external output terminal of said portable audio device is plugged.

6. A plug transmitter according to claim 4, wherein said input connector is a jack pin projected in an upper wall of said case, and the portable audio device is held on the case by plug-in coupling with a female jack arranged in the portable audio device.

7. A plug transmitter according to claim 4, 5 or 6, wherein a card reading modulator portion is connected to said transmitting circuit within said case,

a card insertion hole is formed in said case in accordance with a card insertion port of said card reading modulator portion, and

the card reading modulator portion reads data from a memory card recording audio data, and outputs the read data to said transmitting circuit as an audio signal.

8. An audio system for an automobile according to claim 7, wherein said case is constructed by a main body for storing said transmitting circuit and an adapter portion detachably attached to the main body, and

said card reading modulator portion is arranged in  
said main body.

9. A plug transmitter according to claim 4, 5, 6 or  
7, wherein a constant voltage output circuit for

converting the electric power inputted from said power input terminal to an external power input voltage of the portable audio device is arranged in said case, and an output power jack connected to an output of the constant voltage output circuit is arranged in said case.